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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,625	12/20/2000	Frank Bor-Her Chen	25164-67462	9358
28863	7590	10/11/2006	EXAMINER	
SHUMAKER & SIEFFERT, P. A. 8425 SEASONS PARKWAY SUITE 105 ST. PAUL, MN 55125			TSOY, ELENA	
			ART UNIT	PAPER NUMBER
			1762	

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/742,625

Applicant(s)

CHEN ET AL.

Examiner

Elena Tsoy

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-39, 41-46, 48, 50-52 and 54 is/are pending in the application.
- 4a) Of the above claim(s) 44-46, 48 and 54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-39, 41-43 and 50-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Amendment

Amendment filed on August 25, 2006 has been entered. Claim 53 has been cancelled. Claims 63-66 have been cancelled as being directed to a non-elected invention. Claims 37-39, 41-46, 8, 50-52, and 54 are pending in the application.

Election/Restrictions

Newly amended claim 44 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: a step of contacting the primer layer with a mat in amended claim 44 is now a *separate essential* step, such that amended claim 44 no longer reads on originally claimed embodiment, and now is directed to a *film transfer process* embodiment, which is independent or distinct from originally claimed embodiment.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 44-46, and 48 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re*

Art Unit: 1762

Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Rejection of claims 37-39, 41-46, 48, and 50-54 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-38 of U.S. Patent No. 6,165,308 has been withdrawn due to timely filed terminal disclaimer.

Claim Objections

1. Claim 44 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 37 recites **all essential** steps. Therefore, a *further* step of claim 50 cannot be added as a further essential step.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1762

3. Rejection of Claim 53 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention has been withdrawn due to cancellation of the claim

4. Claims 44-46, 48, and 54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention

Claim 44 recites a *further* step in addition to essential steps of claim 37, which renders the claim indefinite because it is not clear how claim 37 having **all** *essential* process could have one more *essential* step.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Rejection of claims 37-39, 42, 44-46, 49-50, and 53-54 under 35 U.S.C. 102(b) as being anticipated by van der Hoeven (U.S. Patent 4,789,604, hereafter '604) has been withdrawn due to amendment

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1762

8. Rejection of claims 37-39, 41-46, 48, and 50-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Hoeven (US 4,789,604, hereafter '604) in view of Helmer et al (WO 96/22338, hereafter '338) has been withdrawn due to amendment.

9. Claims 37-39, 41-43, and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 2224732 in view of Carmichael (US 2,375,195).

DE 2224732 discloses a method for finishing the surface of chipboard, fibreboard, plywood producing comprising impregnating paper sheet (claimed compressible mat comprising fibers, page 8, line 1) with aqueous fast-curing aminoplastics resins (claimed primer), drying for 2 minutes at 130⁰C (page 8, P2), coating on one or both sides with a mixture of an aqueous fast-curing amino-plastics resin and a dispersion of a self-cross-linking acrylic resin which give glossy patch-free surfaces when pressed onto boards of wooden material on removal from the mould hot (claimed thermosetting polymers) (See Abstract).

DE 2224732 fails to teach that the primer forms a chemically crosslinked matrix upon application of the primer without heat drying step, so that the aqueous resin mixture is applied to the cured primer (Claim 37).

Carmichael teaches that a quick-setting adhesive can be used for forming priming coats for wood (page 2, col. 2, lines 14-15) and porous surfaces to provide undercoat for finishing coats (page 1, col. 1, lines 11-12). The adhesive is extremely quick-setting when heated, is quick-setting at low range of temperature, and is quick-setting at low temperature (page 2, col. 1, lines 52-57). The adhesive may be used with or without the addition of quick-drying oils: the addition of oils would improve the bond with subsequent coats of oil base materials (page 2, col. 2, lines 43-47).

Art Unit: 1762

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a quick-setting adhesive of Carmichael which is quick-setting at low temperature for impregnating a paper sheet in DE 2224732 since Carmichael teaches that a quick-setting adhesive is suitable for forming priming coats for wood and porous surfaces to provide undercoat for finishing coats.

As to claim 38, DE 2224732 fails to teach that the sheet of paper is glued to the board before applying a primer.

Carmichael teaches that plywood may be made by coating a surface of a ply with the adhesive, positioning it onto another coated ply, and then hot pressing the stack of glued plies (page 1, col. 2, lines 23-50). Also, it is held that choice of sequence of adding ingredients does not involve invention.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have positioned paper coated with adhesive in DE 2224732 in view of Carmichael onto boards of wooden material, then applied a top coat followed by hot pressing with the expectation of providing the desired glossy patch-free surface since it is held that choice of sequence of adding ingredients does not involve invention.

As to claim 41, Carmichael teaches that the adhesive contains components which react chemically (covalent bonding) (See page 2, col. 1, lines 22-53) and acid which is ionically stabilized by adding caustic soda pH 7-10, i.e. contains acid anions (ionic crosslinking) (See page 1, col. 2, lines 51-60).

As to claims 51-52, It is held that concentration limitations are obvious absent a showing of criticality. *Akzo v. E.I. du Pont de Nemours* 1 USPQ 2d 1704 (Fed. Cir. 1987). It is also held

Art Unit: 1762

that it is not inventive to discover the optimum or workable ranges of result-effective variables by routine experimentation. In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). See also In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum values of the relevant concentration parameters (including those of claimed invention) in DE 2224732 in view of Carmichael through routine experimentation in the absence of showing of criticality.

As to claim 50, the limitations of dependent claim 50 are described in the specification as being not subject matter of claimed invention (See specification, page 2, lines 1-2, describing that The mat is *typically* treated with a pre-press sealer to provide release from the hot press platen and thus optimize surface smoothness and minimize buildup on the press platens (metal plates)).

10. Claims 37-39, 41-43, and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 2224732 in view of Carmichael, further in view of Helmer et al (WO 96/22338).

DE 2224732 in view of Carmichael is applied here for the same reasons as above. DE 2224732 in view of Carmichael fails to teach the use of primer that cross-link at the point of application thereby forming covalently crosslinked or ionically crosslinked polymers

'338 teaches the formation of a quick drying paint (i.e., a decorative coating) comprising crosslinking acrylate polymers (pp. 3, 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used these polymers in place of those of Carmichael in order to have achieved faster curing with a reasonable expectation of success

Art Unit: 1762

because they also have the advantage of hardening quickly. Applicant states that these polymers are ionically crosslinked, thermosetting polymers, and that they crosslink as they are being applied (i.e., concomitant with application).

As to claims 51-52, '338 teaches that the solids content may be 40-70 % (p. 14, lines 29-36).

11. Claims 38-39, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 2224732 in view of Carmichael/DE 2224732 in view of Carmichael, further in view of Helmer et al/. and further in view of van der Hoeven (US 4,789,604, hereafter '604).

As to claims 38-39, '604 teaches that the substrate for the coating may be a wood panel with paper attached to it (col. 6, lines 25-54). (In such embodiment, the polymerizable coating is placed on the paper (col. 6, lines 30-32). Adjacent layers may be attached by glue (col. 3, line 50-col. 4, line 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied an adhesive in DE 2224732 in view of Carmichael onto a paper glued to a wood panel, then applied a top coat followed by hot pressing with the expectation of providing the desired glossy patch-free surface since it is held that choice of sequence of adding ingredients does not involve invention, and '604 teaches that the substrate for the coating may be a wood panel with paper attached to it.

As to claim 50, '604 teaches that a top, release coating (3) may be applied to the polymer before compressing and heating (col. 10, lines 48-57). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied a top, release coating to the polymer before compressing and heating in DE 2224732 in view of Carmichael with the expectation of preventing metal marking.

Response to Arguments

12. Applicant's arguments with respect to claims 37-39, 41-43, and 50-52 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Thursday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy
Primary Examiner
Art Unit 1762

ELENA TSOY
PRIMARY EXAMINER


October 2, 2006